HARDWARE LOAD BALANCING THROUGH A SINGLE FABRIC

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ABSTRACT OF THE DISCLOSURE

The present invention relates to a method and apparatus for balancing loads in a switching fabric. The switching fabric comprises a plurality of data ports through which data frames enter or exit the switching fabric. In one embodiment, the apparatus includes a buffer and a routing data generation circuit. The buffer receives a data frame to be transmitted to a destination device via the switching fabric. The routing data generation circuit is coupled to the buffer. The routing data generation circuit generates and adds routing data to the data frame received by the buffer. The routing data identifies one of the plurality of data ports through which the data frame will exit the switching fabric to reach the destination device. After the routing data is added to the data frame, the buffer transmits the data frame to the switching system.